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| APPLICATION NO.                                 | FI   | LING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | • |
|---|------|--------------|----------------------|---------------------|------------------|---|
| 10/664,665 09/18/2                              |      | 09/18/2003   | Akram Ali Salman     | 2000.111200         | 4618             |   |
| 23720   | 7590 | 11/08/2004   |                      | EXAM                | INER             |   |
|   |      | GAN & AMERSO | SCHILLINGER, LAURA M |                     |                  |   |
| 10333 RICHMOND, SUITE 1100<br>HOUSTON, TX 77042 |      |              | ART UNIT             | PAPER NUMBER        | -                |   |
|   | ,    |              |                      | 2913                |                  |   |

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | •  |   | SV /   |  |  |  |  |
|---|--|---|--|--|--|--|--|
| 4   |  | Application No.   | Applicant(s)   |  |  |  |  |
|   |  | 10/664,665  | SALMAN ET AL.  |  |  |  |  |
|   | Office Action Summary  | Examiner  | Art Unit   |  |  |  |  |
|   |  | Laura M Schillinger   | 2813   |  |  |  |  |
| Period f  | The MAILING DATE of this communication ap<br>or Reply  | pears on the cover sheet with the c   | orrespondence address                                |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |  |   |  |  |  |  |  |
| Status  |  |   |  |  |  |  |  |
| 1)[🛛  | Responsive to communication(s) filed on 18 S   | September 2003.   |  |  |  |  |  |
| 2a) <u></u> ☐   | This action is <b>FINAL</b> . 2b)⊠ Thi   | s action is non-final.  | •  |  |  |  |  |
| 3)□   | 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.                                   |   |  |  |  |  |  |
| Disposi   | tion of Claims   |   |  |  |  |  |  |
| 5)<br>6)<br>7)  | Claim(s) 1-76 is/are pending in the application 4a) Of the above claim(s) is/are withdra Claim(s) is/are allowed. Claim(s) is/are rejected. Claim(s) is/are objected to. Claim(s) 1-76 are subject to restriction and/or                               | awn from consideration.   |  |  |  |  |  |
| Applica   | tion Papers  |   |  |  |  |  |  |
| 10)□  | The specification is objected to by the Examin The drawing(s) filed on is/are: a) accomplicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Examination. | cepted or b) objected to by the drawing(s) be held in abeyance. Section is required if the drawing(s) is ob | e 37 CFR 1.85(a).<br>jected to. See 37 CFR 1.121(d). |  |  |  |  |
| Priority  | under 35 U.S.C. § 119  |   | •  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>  |  |   |  |  |  |  |  |
| 2)  Not 3) Info   | nt(s) ice of References Cited (PTO-892) ice of Draftsperson's Patent Drawing Review (PTO-948) ormation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 eer No(s)/Mail Date  | 4) Interview Summary Paper No(s)/Mail D  5) Notice of Informal F  6) Other:                                 |  |  |  |  |  |

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## **DETAILED ACTION**

## Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species 1, claims 1-18, pertaining to a method including determining a time to breakdown for a dielectric layer based upon a number of pulses applied to a device;

Species 2, claims 19-36, pertaining to a method including measuring a current through the dielectric layer after one or more of the constant voltage pulses has been applied;

Species 3, claims 37-52, pertaining to method including measuring a current through the dielectric layer after each of the constant voltage pulses has been applied;

Species 4, claims 53-66, pertaining to a method including applying multiple pulses having a constant voltage that ranges from 4-5 volts and a constant pulse width that is less than 1 usec;

Species 5, claims 67-70, pertaining to a method including forming a plurality of devices and measuring the current through the dielectric layer and determining the time to breakdown;

Species 6, claims 71-73, pertaining to a method including forming a plurality of devices and applying a plurality of constant voltage pulses having a constant width;

Species 7, claims 74-76, pertaining to a method including forming a plurality of devices, applying a constant voltage that ranges from 4-5 V and has a width less than 1 usec.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there is no generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M Schillinger whose telephone number is (571) 272-1697. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LMS

11/10/04